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Remarks

This paper is being provided in Response to the September 28, 2006 Office Action for the above-referenced application. Claims 1-7, 9-17, 19-21, 28, 43, 44, 46, and 162-165 are currently pending. Claim 1 has been amended. Claim 163 has been cancelled. Applicant respectfully submits that the amendments to the claims are supported by the originally filed application.

Applicant has maintained in this application the claims withdrawn by the Examiner. Upon allowance of a linking claim, Applicant respectfully submits that any claims depending from or otherwise including all of the limitations of an allowable linking claim should be subsequently rejoined in the present application and allowed.

Applicant thanks Examiner Forman for according a telephone interview on December 5, 2006, to discuss the application and several of the cited references.

During the interview, Applicant discussed claim 1 forming this Amendment in relation to the cited art. First, the Applicant addressed the Examiner's rejection of the term "encases" in claim 1. The specification describes various embodiments of the present invention as comprising a suspended beam that "contains" one or more microfluidic channels. *See, e.g.*, page 4 ("The apparatus comprises at least one suspended beam ... The suspended beam may contain one or more microfluidic channels..."). As defined by a Merriam-Webster Dictionary, "contain" is synonymous with "enclose." Applicant proposed amending claim 1 to utilize the word "encloses" to further define that which is presently claimed. Examiner indicated that this would likely be acceptable.

The Applicant then pointed out that many of the limitations in the newly presented claims distinguish over the prior art. For example, the claims now require that the device comprises a *suspended, resonating* beam that *encloses* one or more sealed microfluidic channels, wherein each channel has an inner surface treated to bind to or react with at least one analyte, and wherein the device measures the changes in resonance frequency of the beam. The Applicant pointed out that none of the prior art references, either alone or in combination, teach or suggest a suspended beam that encloses one or more sealed microfluidic channels. The enclosure of the beam allows the fluid to reside within the channel, and the channel (or channels) to reside inside a vacuum. In contrast with the present invention, the references teach channels suspended *within* a fluid. Other limitations that distinguish these claims from the prior art were also mentioned.

For example, the suspended beam of the present invention resonates, so that the device can measure the change in resonant frequency of the beam. Pinkel and Boisseau, for example, disclose a rigid beam, rather than a beam capable of resonating. Further, at least one inner surface of each microfluidic channel of the present invention is treated to bind to or react with at least one analyte. In contrast, the microcantilevers of Geli are not hollow, so that binding or reacting does not take place with the inside of the channel walls. Applicant further notes that upon the granting of the below-noted petition, Manalis will no longer be a proper 102(e) reference.

Examiner Forman indicated that the amended claims would likely be distinguishable over the art of record. In this Response and Amendment, Applicant amends claim 1 to reflect that which was discussed during the telephone interview. Applicant respectfully submits that the amendments to the claims are supported by the originally-filed application and place this application in condition for allowance.

**Rejection under 35 U.S.C. § 132(a), New Matter**

The above-referenced application was filed on September 23, 2003, without a priority claim. Applicant submitted a Petition to Claim Priority under 37 C.F.R. § 1.78 on July 20, 2005. The July 2005 Petition was accompanied by an Amendment and the petition fee of \$1370.00 set forth in 37 CFR §1.17(t) for an unintentionally delayed claim of priority. The Petitions Examiner dismissed the petition on March 16, 2006, stating that the petition did not comply with the formalities listed by 37 C.F.R. § 1.78(a)(6). The Examiner stated that the Applicant may submit a renewed petition and a substitute amendment.

Applicant submitted a renewed petition under 35 U.S.C. § 119(e) and 37 C.F.R. § 1.78 on November 21, 2006. The Examiner dismissed the renewed petition on January 3, 2007. The Examiner stated that although the petition complies with the requirements for a grantable petition, Applicant must include an explanation for the lengthy delay between the mail date of the March 16, 2006 Decision and the filing of the renewed petition on November 21, 2006.

Applicant submitted a second renewed petition under 35 U.S.C. § 119(e) and 37 C.F.R. § 1.78 on January 22, 2007. The second renewed petition states that this application is a Continuation-in-Part of U.S. Application No. 10/336,549, filed on January 2, 2003, which claims the benefit of Provisional Application No. 60/405,185, filed on August 20, 2002.

Applicant submits that the entire delay between the date the priority claim was due under 37 C.F.R. § 1.78(a)(5)(ii) and the date of this petition was unintentional. Applicant submitted the present application on September 23, 2003. On March 31, 2005, the PTO issued the first substantive Office Action. In that Action, Examiner Forman cited Manalis (U.S. Patent Application Publication No. 2004/0038426, filed January 2, 2003) as a reference. Through the course of working with the Applicant to draft a Response, the undersigned learned that a different and separate law firm filed a related Manalis application, one which the present application should have claimed priority to. On July 20, 2005, Applicant submitted a Petition to Claim Priority.

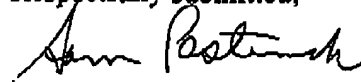
Examiner Milef dismissed the Petition to Claim Priority on March 16, 2006. However, Applicant never received the Decision. The prosecution file does not contain the Decision, nor can the undersigned find any docket entry within CPi (Choate, Hall & Stewart LLP's Patent Department electronic docketing system) evidencing receipt of the Decision. Furthermore, Applicant received a second substantive Office Action, mailed after the March 16, 2006 Decision, in which Examiner Forman stated "Applicant state that a petition has been filed to claim priority to the Manalis reference thereby removing the reference as prior art. The petition has been received by the office, but has not been reviewed." See Office Action mailed 3/21/2006 at pages 9-10. Applicant responded to the substantive Office Action on July 26, 2006. Applicant was unaware that any decision was rendered on the Petition to Claim Priority until Applicant received the following Office Action, mailed September 28, 2006. See Office Action mailed 9/23/2006 at page 4 ("Applicant states that a petition to claim priority was submitted July 20, 2005. The petition has been reviewed and dismissed 16 March 2006."). The undersigned retrieved the Decision from PAIR.

As stated above, Applicant submitted a renewed Petition to Claim Priority on November 21, 2006, which was again dismissed on January 3, 2007. The January 3, 2007 Decision requested the additional information provided above, to support the statement of unintentional delay. Applicant submitted a second renewed petition under 35 U.S.C. § 119(e) and 37 C.F.R. § 1.78 on January 22, 2007. This second renewed petition has not yet been reviewed and granted. It is respectfully submitted that the language cited will not be new matter if the petition is granted.

Based on the above, Applicant respectfully requests that the Examiner reconsider and withdraw all outstanding rejections and objections. Favorable consideration and allowance are earnestly solicited. Should there be any questions after reviewing this paper, the Examiner is invited to contact the undersigned at 617-248-4054.

Please charge any necessary fees or credit any overpayments to our Deposit Account No. 03-1721.

Respectfully submitted,



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